

# Notice of Allowability

Application No.

10/573,436

Examiner

Guy G. Anderson

Applicant(s)

SEIFERT, MARTIN

Art Unit

2883

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment received 12/17/2007.
2. ☒ The allowed claim(s) is/are 1,2,4-12,18 and 38-47.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 12/17/2007
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

- 1.1 An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
- 1.2 Authorization for this examiner's amendment was given in an email from Peter Rainville on 1/19/2008, which was in response to a telephone conversation held on or about 1/15/2008.
- 1.3 Please amend and add the following claims:

Claim 1 (Currently Amended) An apparatus for accommodating optical fiber, comprising: a length of optical fiber comprising a rare earth for absorbing optical energy provided to the length of optical fiber; and a body comprising an inwardly facing surface comprising a helical groove for receiving a plurality of loops of ~~[[a]]~~ said length of optical fiber, ~~said body including at least a portion wherein said inwardly facing surface is continuous between two adjacent loops.~~

Claim 2. (Currently Amended) The apparatus of claim 1 wherein said plurality of loops ~~surface is adapted such that at least the majority of all of the loops to be received by said surface will be received so as to be~~ are substantially coaxial.

Claim 12. (Currently Amended). The apparatus of claim 1 wherein one or more of said loops of said plurality is circular. ~~comprising said length of optical fiber.~~

Claim 42. (New) The apparatus of claim 1 wherein said optical energy to be absorbed by said rare earth can have a first wavelength and said length of optical fiber can convert said optical energy to optical energy having a second wavelength that is different than said first wavelength and wherein said length of optical fiber is normally multimode at said second wavelength.

Claim 43. (New) The apparatus of claim 41 wherein said plurality of loops are shaped such that for optical energy having said second wavelength higher order modes are attenuated substantially more than a fundamental mode of said length of optical fiber.

Claim 44. (New) The apparatus of claim 1 comprising a light source optically coupled to said length of optical fiber for providing optical energy to said length of optical fiber.

Claim 45. (New) The apparatus of claim 43 wherein said light source can provide said optical energy for said rare earth to absorb, said optical energy having a first wavelength, and wherein said apparatus comprises a second light source optically coupled to said optical fiber for providing light having a second wavelength that is different than said first wavelength.

Claim 46. (New) The apparatus of claim 43 wherein said light source can provide said optical energy for said rare earth to absorb, said optical energy having a first wavelength, and wherein said length of optical fiber can convert said optical energy to optical energy having a second wavelength that is different than said first wavelength, and wherein said apparatus includes at least one optical fiber grating that forms at least part of a laser cavity for light having said second wavelength.

Claim 47. (New) The apparatus of claim 1 wherein said plurality of loops have substantially the same radius of curvature.

***Allowable Subject Matter***

- 2.1 The following is an examiner's statement of reasons for allowance: Claims 39-52 are allowed for the following reason/s:

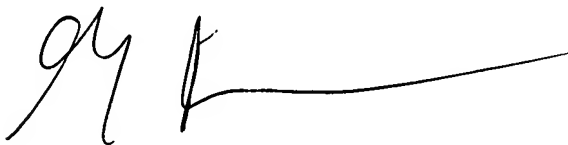
The instant application is deemed to be directed towards a non-obvious improvement over the invention patented in U.S. Patent No. 6,424,784 to Olson.

- 2.2 Claims 1, 6, 18 and 38 are allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious an apparatus for accommodating a length of

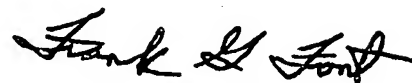
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optical fiber comprising a rare earth for absorbing optical energy and further comprising a body comprising an inwardly facing surface comprising a helical groove receiving a plurality of loops of said length of optical fiber.

- 2.3 Claims 2, 4-5, 7-12, 39-47 are dependant either directly or indirectly on claims 1, 6, 18 or 38 and are thus also allowable.
- 2.4 Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
- 2.5 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guy G. Anderson whose telephone number is 571.272.8045. The examiner can normally be reached on Tuesday-Saturday 0900-2200.
- 2.6 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571.272.2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
- 2.7 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.
- 2.8 Date and signature of assistant examiner.



January 19, 2008



Frank G. Font  
Supervisory Patent Examiner  
Technology Center 2800